



US Army Corps
of Engineers®

Engineer Research and
Development Center

Paints and Coatings PROSPECT Course

Description

The Paint Technology Center (PTC) conducts an Annual Proponent-Sponsored Engineer Corps Training (PROSPECT) school at the Champaign site and participates in an annual PROSPECT course in Arlington, TX. Instructors endeavor to meet specific needs of the customer. The PTC has provided on-site training at installations requiring a number of persons have a basic understanding of the subject. However, special on-site schools can be arranged to meet specific needs. Class size is usually limited to 25 persons and duration is typically 1 to 1½ days. Some schools have focused on basic fundamentals of paint and inspection. Others have used an ongoing painting contract as the basis for lectures and have been attended by both Corps and contractor personnel. On-site instruction should be coordinated directly with PTC personnel. Attendance at PROSPECT schools should be coordinated through the District training officer and the Huntsville Professional Development Support Center at URL:

<http://pdsc.hnd.usace.army.mil/>

Capabilities

The PTC has conducted an annual PROSPECT training school “Paint Coatings: Submersible” at the Champaign, Illinois site since 1973. Focus of the school is primarily on coatings used on Army Corps of Engineers civil works structures. It is available to Corps employees whose jobs include the specification, application, or inspection of coatings on Corps structures.



PTC training stresses both classroom and on-site experience.

PTC Personnel also participate in presenting the PROSPECT training course “Paint, Coatings and Quality Assurance” conducted annually in Arlington, TX. The goal of this course is to improve quality assurance techniques and reduce painting deficiencies. The course is open to students with current or projected assignments as QA representatives with paint QA responsibilities, including architects and engineers with design, specification, and review responsibilities. The course is attended annually by some 100 students from the Corps of Engineers and other military and Federal government agencies.

Supporting Technology

The PTC maintains an extensive array of equipment, ranging from the common laboratory tools and supplies needed to perform routine paint testing, to the sophisticated electronic instrumentation required to perform research and development, and forensic-type studies. The PTC keeps an inventory of raw materials and milling equipment for the manufacture of laboratory batches of paint, as well as gages and meters for the field evaluation of coatings. The staff maintains a close relationship with the Steel Structures Painting Council, American Society for Testing and Materials, Tri-Services Paint Committee, National Association of Corrosion Engineers, and the University of Illinois. These relationships help to broaden the PTC’s equipment, technology, and information bases required to address the full range of needs in the field of painting technology.

Benefits

The emphasis of these PROSPECT course “Paint Coatings: Submersible” is on the painting of Corps of Engineers civil works structures, with a focus on the content included in civil works construction guide specification [UFGS 09965A, “Painting: Hydraulic Structures and Appurtenant Works”](#) and the [Engineering and Design Manual EM 1110-2-3400, “Painting: New Construction and Maintenance.”](#) The course (conducted in Champaign, IL) helps participants better perform the range of activities that affect field painting projects: (1) paint selection; (2) surface preparation; (3) application of paint chemistry; (4) application methods and equipment; (5) application of corrosion principles; (6) inspection; and (7) adherence to environmental and safety regulations.

The “Paint, Coatings and Quality Assurance” PROSPECT course (conducted in Dallas, TX) has a greater emphasis on the painting of structures on a military installation. Major focus areas include the selection and application of paint systems for wood, concrete and masonry, and metal surfaces, as outlined in the military painting guide specification UFGS 09900, “Paint and Coatings.” This guide specification serves both the Corps and Navy, so this course serves students from the Navy facilities as well. It enables participants to reduce painting deficiencies by using quality assurance techniques and the basic concepts of paint composition, coating selection, safety, and construction quality management necessary to administer the painting requirements of the plans and specifications.

On-site courses can be customized to a specific project to meet site-specific needs and give both Government personnel and contractors a common understanding of the requirements outlined in the project plans and specifications.

Success Stories

The PTC has successfully taught the paints and coatings PROSPECT school for nearly 30 years (annually, since 1973.) On-site schools, given by request, are usually given at a single site, but more recently have been organized through Corps Divisions for presentation to three or four sites along a given river. Some notable highly rated examples are:

- In 2002, the PTC tailored a 1½-day course to the needs of Little Rock District, Table Rock Dam, emphasizing contract requirements of plans and specifications for the painting of a new structure at the dam. The class was attended by 16 students, both Corps and contractor personnel from this and related project sites in District.
- In 2002, the PTC gave a 1-day course to the Corps Rocky Mountain Area Office in Colorado Springs. A dozen Corps students who oversee painting projects attended and were updated on changes to UFGS 09900 and other issues that impact painting projects at the Colorado-area military installations serviced by the Corps.
- In 1999, a special school on bridge inspection was given in Deerfield Beach, FL in conjunction with the Federal Highway Administration.
- In 1997, a special school was presented at an Army Depot emphasized types of coatings and coating requirements to meet stringent operational requirements for structure being built at the location for the destruction of chemical agents.
- In 1994, A special school given for the National Park Service in Guam emphasized surface preparations and coatings that might best be used to preserve historical (World War II) items on that island.
- In 1992, the PTC conducted a special school for HQ 19th Support Command in Tagu, Korea, emphasizing corrosion problems at Army installations in Korea.
- In 1992, the PTC gave a special school at Camp Zuma, Japan, focused on the issue of lead-based paints.

ERDC POC(s)

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